

THE OFFICE OF REGULATORY STAFF

DIRECT TESTIMONY OF

MICHAEL L. SEAMAN-HUYNH

APRIL 25, 2014



DOCKET NO. 2014-86-E

**Application of South Carolina Electric & Gas Company
for a Certificate of Environmental Compatibility and
Public Convenience and Necessity for the Construction
and Operation of Two 230 kV Transmission Lines from
Its Lyles Substation to Its Lake Murray Substation**

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ON BEHALF OF

THE SOUTH CAROLINA OFFICE OF REGULATORY STAFF

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**IN RE: Application of South Carolina Electric & Gas Company for a Certificate of
Environmental Compatibility and Public Convenience and Necessity for the
Construction and Operation of Two 230 kV Transmission Lines from Its Lyles
Substation to Its Lake Murray Substation**

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND OCCUPATION.

A. My name is Michael Seaman-Huynh. My business address is 1401 Main Street, Suite 900, Columbia, South Carolina 29201. I am employed by the State of South Carolina as a Senior Electric Utilities Specialist in the Electric Department for the Office of Regulatory Staff ("ORS").

Q. PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I received my Bachelor's Degree from the University of South Carolina in 1997. Prior to my employment with ORS, I was employed as an energy analyst with a private consulting firm. I joined ORS in 2006 as an Electric Utilities Specialist and was promoted to Senior Electric Utilities Specialist in 2010.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA?

A. Yes. I have previously testified on numerous occasions before the Public Service Commission of South Carolina (“Commission”) in conjunction with fuel clause, general rate case, and Utility Facility Siting and Environmental Protection Act (“Siting Act”) proceedings.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide the results of ORS’s review of the Application (“Application”) of South Carolina Electric & Gas Company (“SCE&G” or “Company”) for a Certificate of Environmental Compatibility and Public Convenience and Necessity (“Certificate”) to construct and operate two (2) 230 kilovolt (“kV”) transmission lines, and associated facilities, traversing approximately ten (10) miles in total in Richland and Lexington Counties in South Carolina. The Application was filed pursuant to the Siting Act and Commission Regulation 103-304.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF THE PROPOSED TRANSMISSION FACILITIES.

A. The first of the proposed facilities are two (2) 230-kV transmission lines (“Proposed Lines”) extending approximately ten (10) miles from the Company’s existing Lyles 230/115 kV Substation (“Lyles Substation”) in Richland County connecting to the Company’s Saluda River 230/115 kV Substation, which is currently under construction in Lexington County and scheduled to be in service in May 2015, (“Saluda River Substation”) and continuing on to its existing Lake Murray 230/115 kV Substation (“Lake Murray Substation”) in Lexington County. The Proposed Lines will replace the

existing Lyles-McMeekin 115 kV and Lyles-Lake Murray 115 kV lines. Approximately 9.82 miles of the Proposed Lines are to be set on existing Company Right-of-Way ("ROW"). The remaining 0.18 miles of the Proposed Lines would be built on new ROW ("Columbia Canal Segment").

The second proposed facility is a 230 kV line terminal at the Lyles Substation ("Lyles Terminal").

The third proposed facility includes two (2) 230 kV line terminals at the Saluda River Substation ("Saluda River Terminals").

Q. DID THE COMPANY CONSIDER ANY ALTERNATIVES TO CONSTRUCTING THE PROPOSED TRANSMISSION FACILITIES?

A. Yes. The Company considered multiple alternatives to the proposed transmission lines. These alternatives included upgrading existing transmission lines and constructing an additional autotransformer at the Saluda River Substation. The Company determined that these alternatives were either more costly and less beneficial to the system or did not mitigate the overload conditions as described later in my testimony

Q. PLEASE DESCRIBE THE INFORMATION WHICH THE SITING ACT REQUIRES IN AN APPLICATION FOR A CERTIFICATE.

A. The Siting Act directs that an application contain a description of the location and the major utility facility(ies) to be built; a summary of any studies which have been made of the environmental impact of the facility(ies); a statement explaining the need for the facility(ies); and such other information as the applicant may consider relevant or as the Commission may require.

Q. DOES THE APPLICATION CONTAIN THIS INFORMATION?

A. Yes. A description of the facilities and their locations is presented, as well as siting and environmental reports including the intended use and need for the facilities.

Q. WHAT IS YOUR UNDERSTANDING OF THE BASIS FOR THE NEED FOR THESE TRANSMISSION LINES AND ASSOCIATED FACILITIES?

A. In 2012, the Company announced its plans to retire the two (2) coal-fired units at its McMeekin Generation Station near Lake Murray upon the commercial operation of the V.C. Summer Unit #3 nuclear unit. After studying the effect of these retirements on its system, the Company determined that if an event caused the loss of its existing Edenwood-Lake Murray 230 kV line and one of the 230/115 kV autotransformers at the Lake Murray Substation, the remaining 230/115 kV autotransformer at the Lake Murray Substation would be overloaded. This overload has the potential for power disruptions in the Company's Northwest service territory, including the Lexington and Irmo load centers.

The Company adheres to the North American Electric Reliability Corporation's ("NERC") Transmission Planning Standards, as well as its own Long Term Planning Criteria, in determining the need for new transmission facilities. Applying these criteria to the electrical system resulted in the Company's determination that additional support was necessary, and the Proposed Lines were the most appropriate solution. The Proposed Lines will ensure that the Company's system remains in compliance with NERC standards and its own Long Term Planning Criteria.

Q. WHAT IS THE PROBABLE ENVIRONMENTAL IMPACT OF THE TRANSMISSION LINES?

A. The Company conducted a Siting and Environmental Report (“Study”) to determine the effect of the Proposed Lines. The Study takes into consideration the effect of the Proposed Lines on the environment, as well as, cultural, land use and scenic resources. The results showed that the Proposed Lines would not have a significant impact on the environment. The effect on cultural, land use and scenic resources are also minimized by the proposed routes.

Q. HOW WILL THE PROPOSED LINES SERVE THE INTEREST OF SYSTEM ECONOMY AND RELIABILITY?

A. The Company indicates in its Application, as well as in testimony, that the Proposed Lines are the most cost effective manner to serve the system when considering the need to minimize the effects to the environment, land use, cultural resources and aesthetics. ORS concluded that since the Proposed Lines will be designed to NERC standards to withstand specific events, they will enhance the reliability of SCE&G’s system.

Q. DOES THE COMPANY PROVIDE REASONABLE ASSURANCE THE PROPOSED FACILITIES WILL CONFORM TO APPLICABLE STATE AND LOCAL LAWS AND REGULATIONS?

A. Yes. In the Application and testimony, the Company affirms that it will conform to all applicable state and local laws and regulations as they pertain to the proposed transmission lines and associated facilities.

1 **Q. WERE ANY COMMENTS FILED IN THIS DOCKET PERTAINING TO THE**
2 **COMPANY'S REQUEST FOR A CERTIFICATE FOR THE TRANSMISSION**
3 **LINES?**

4 **A.** ORS is not aware of any comments filed by the other statutory parties in this
5 proceeding. The statutory parties, other than ORS, have expertise in the fields of
6 environment, health, recreation and natural resources and include the SC Department of
7 Health and Environmental Control, the Department of Natural Resources, and the
8 Department of Parks, Recreation and Tourism.

9 **Q. HAS THE COMPANY SECURED THE NECESSARY RIGHTS-OF-WAY**
10 **ALONG THE TRANSMISSION LINE ROUTES?**

11 **A.** The majority of the Proposed Lines, approximately 9.82 of the 10 miles proposed
12 for the transmission lines, will be built on existing Company ROW. The remaining 0.18
13 miles of the Columbia Canal Segment is to be built on newly established ROW.
14 Establishing this new ROW would shift the Columbia Canal Segment approximately 180
15 feet north of the existing ROW. This, in turn, would eliminate the need for a new 230 kV
16 structure to be built between the Columbia Canal and the Broad River. The Company
17 refers to this route as Option 1 in its Application. The new ROW for the Columbia Canal
18 Segment requires approximately 2.7 acres on four (4) parcels of land owned by the City
19 of Columbia ("City"), two (2) private landowners, and the State of South Carolina
20 ("State").

21 SCE&G has determined that in a previous transfer of this property from SCE&G
22 to the City, SCE&G reserved the right to place additional transmission lines on this

1 parcel in the future. The Company has informed the City that it is exercising this right
2 and will provide the City with a new easement drawing showing the expanded ROW.

3 As of this writing the Company is engaged in acquisition discussions with the two
4 (2) private landowners.

5 Once SCE&G completes the acquisition of the ROW on the other parcels, the
6 Company plans to submit an easement request to the South Carolina Budget and Control
7 Board for the remaining parcel owned by the State.

8 **Q. WHAT DOES THE COMPANY PROPOSE TO DO IF THE NEW RIGHTS-OF-**
9 **WAY IN THE 0.18 MILES OF THE COLUMBIA CANAL SEGMENT CANNOT**
10 **BE SECURED ON A SCHEDULE TO SUPPORT THE CONSTRUCTION OF**
11 **THE UNITS?**

12 **A.** In its Application, the Company has proposed an alternate route for the Columbia
13 Canal Segment should this event occur. This alternate route places the Proposed Lines
14 on established ROW currently serving two (2) SCE&G 115 kV transmission lines. The
15 Company refers to this route as Option 2 in its Application.

16 **Q. DOES ORS HAVE ANY RECOMMENDATION WITH REGARD TO THE**
17 **PRIMARY ROUTE AND THE ALTERNATE ROUTE FOR THE PROPOSED**
18 **LINES?**

19 **A.** Yes. ORS recommends that the Company's primary route be utilized as
20 proposed. However, recognizing that the Company may not be successful in securing all
21 the necessary rights-of-way for the primary route in a timely manner, ORS recommends
22 that the Commission approve the primary route and the alternate route as proposed by the
23 Company.

**Q. HOW WILL THIS PROJECT AID IN ECONOMIC DEVELOPMENT AND
ATTRACTION AND RETENTION OF JOBS IN SOUTH CAROLINA?**

A. The construction of the Proposed Lines and associated facilities will provide for the safe and economical transfer of electricity to the load centers where needed, and will enhance the reliability of the electrical system in growing areas of the Company's service territory. The result will be a stable supply and reliable delivery of power, which promotes economic development.

**Q. WILL PUBLIC CONVENIENCE AND NECESSITY BE SERVED BY THE
TRANSMISSION LINES PROPOSED IN THE APPLICATION?**

A. Yes. The proposed transmission lines and associated facilities will result in minimal impact to the environment and will serve the interests of system economy and reliability. The Proposed Lines, in conjunction with the Lyles Terminal and Saluda River Terminals, will support the Company in providing reliable electric service to its customers in the Company's Northwest service territory, including the Lexington and Irmo load centers.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes, it does.